

A NEW GENUS AND SPECIES OF ANTHURID ISOPOD
FROM DEEP WATER OFF THE EAST COAST
OF THE UNITED STATES

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Abstract.—A new anthurid isopod genus and species, *Ocsanthura vimsae*, is described from deep water (350-460 m) off New Jersey and Virginia. The species is characterized by the possession of a 7-segmented maxilliped, the carpi of the posterior pereopods not underriding the propodi, free pleonites, and non-operculate first pleopods.

Amongst a small collection of anthurids submitted for identification to the author, by the Virginia Institute of Marine Science, were several specimens which were clearly an undescribed species. Difficulty was experienced in placing the species in an established genus, hence the present description.

The material was collected in deep water off New Jersey and Virginia during the Outer Continental Shelf Program (1977), sponsored by the Bureau of Land Management. Type-material has been deposited in the Smithsonian Institution (USNM) and the Virginian Institute of Marine Science (VIMS).

Ocsanthura new genus

Diagnosis.—Eyes absent. Antennular flagellum of 3 articles, antennal flagellum of 8 articles. Mouthparts of cutting type. Mandible with 3-segmented palp; lacina plate broad. Maxilliped bearing endite; palp 7-segmented. Pereopods 1-3 subchelate; pereopods 4-7 with rectangular carpus not underriding propodus. Pleonites 1-6 free. Pleopod 1 short, not operculate.

Etymology.—The 'Ocs' of the generic name is the acronym for Outer Continental Shelf (program); the 'anthura' is the commonly-used suffix for genera of the Anthuridea.

Type-species.—*Ocsanthura vimsae*.

Ocsanthura vimsae, new species

Figs. 1-2

Description.—Female: Integument of anterior body thin, becoming more indurate posteriorly; uropods and telson indurate. Triangular rostrum extending beyond anterolateral corners of cephalon. Body proportions: C < 1 < 2 > 3 < 4 = 5 > 6 > 7. Pereonites with dorsolateral grooves; pereonites 3-6 with single middorsal pit; pereonite 7 with 2 shallow depressions dorsally. Pleonites free; pleonite 1 equal to pleonite 5, slightly longer

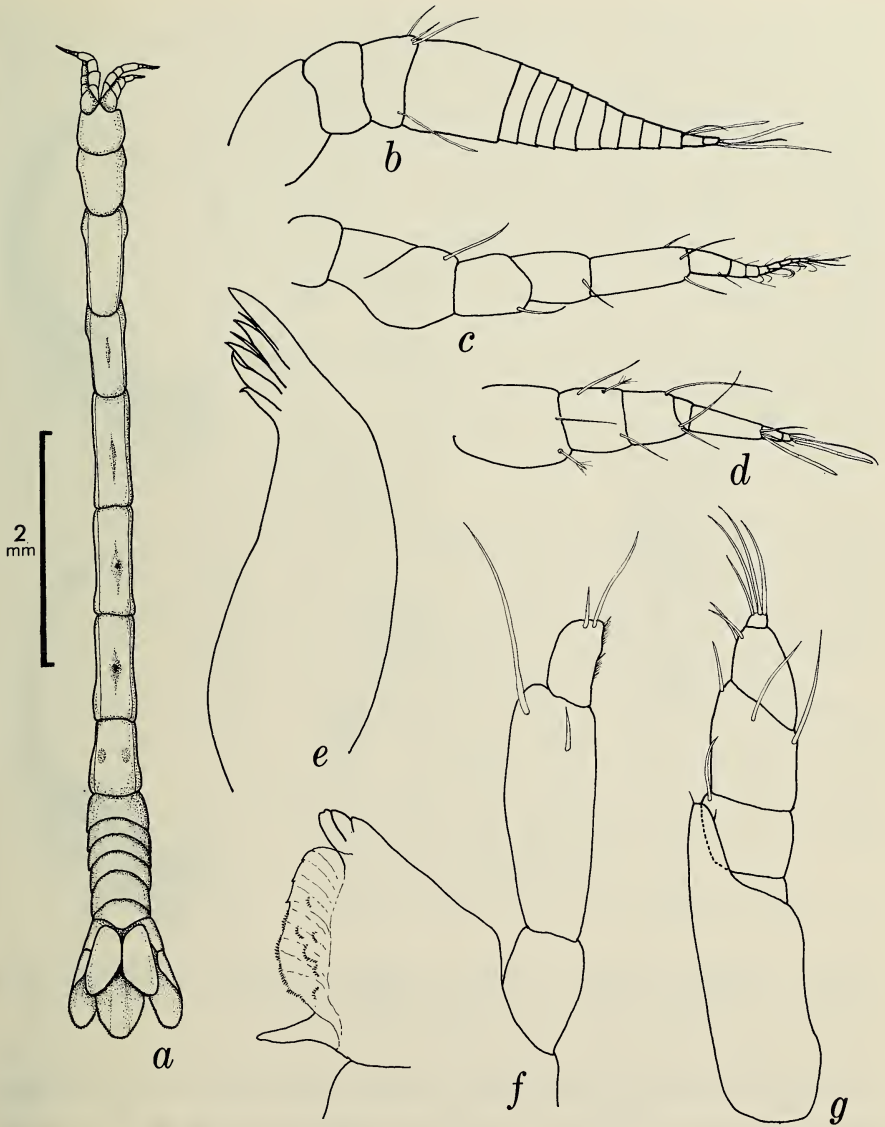


Fig. 1. *Ocsanthura vimsae*: a, Holotype ♀ in dorsal view; b, Antennule sub ♂; c, Antenna ♀; d, Antennule ♀; e, Maxilla; f, Mandible; g, Maxilliped.

than subequal pleonites 2-4. Pleonite 6 with convex posterodorsal margin. Telson with 2 basal statocysts, distally rounded, slightly wider distally than proximally, margin finely serrulate, with broad slightly raised mid-dorsal region; ventrally convex.

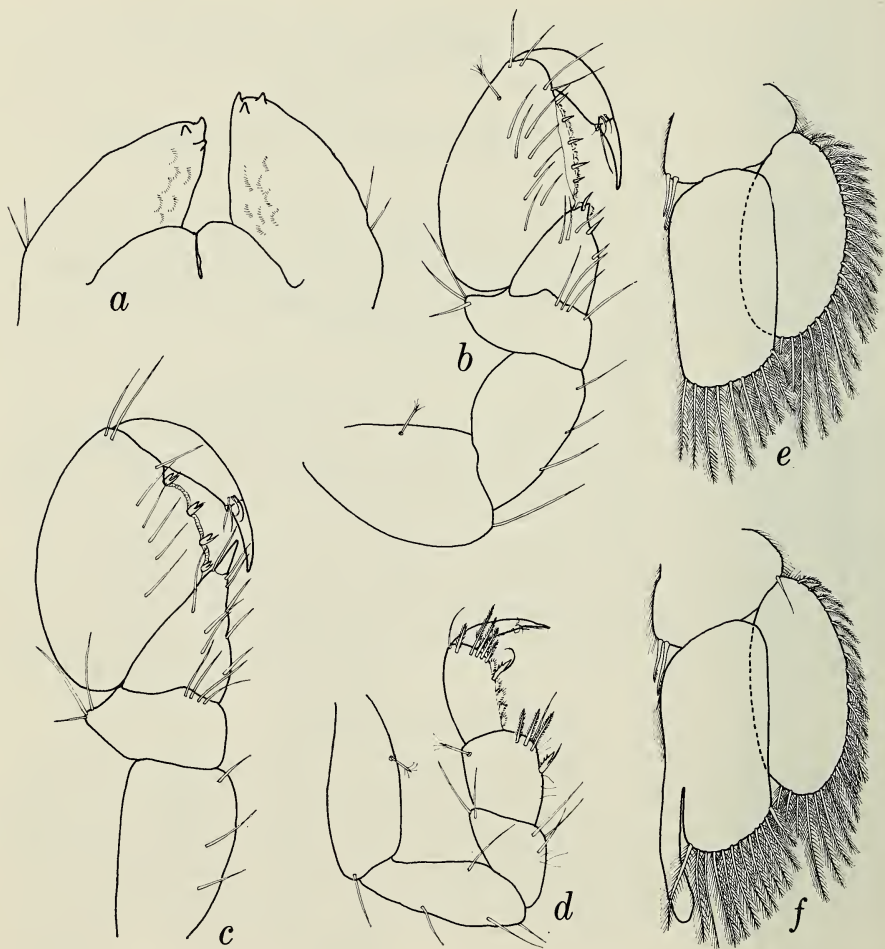


Fig. 2. *Ocsanthura vimsae*: a, Lower lip complex; b, Pereopod 1; c, Pereopod 2; d, Pereopod 7; e, Pleopod 1 sub ♂; f, Pleopod 2 sub ♂.

Antennular peduncle 4-segmented, fourth segment short, oblique; flagellum of 3 articles, basal article elongate. Antennal peduncle with second segment longest, segments 3 and 4 subequal, segment 5 slightly longer; flagellum of 8 articles. Mandibular palp 3-segmented, second segment twice length of basal segment, terminal segment one-third length of second; incisor of 3 cusps; molar slender, apically narrowed; lacinia broad, expanded, with 4 tiny marginal teeth distally, and finely serrulate proximal margin. Maxilla proximally relatively broad, with 7 distal teeth. Each

lobe of lower lip bearing 3 short acute processes. Maxilliped 7-segmented, terminal segment tiny, setose; thin-walled endite reaching to distal margin of third segment. Pereopod 1 not as robust as pereopod 2, unguis somewhat more than one-third length of dactylus; propodal palm bearing 5 short spines with rounded and fringed scales between, carpus triangular, apically acute. Pereopod 2 unguis one-third length of dactylus, propodus broader than pereopod 1, palmar margin bearing 4 short bifid spines with blunt coalesced scales between; carpus triangular, with strong apical spine. Posterior pereopods with propodus bearing several distal fringed spines, strong dentate sensory spine, and several fringed scales on posterior margin; carpus broadly rectangular, with 3 fringed spines and single sensory spine on posterior margin, not underriding propodus. Pleopod 1 not operculate, similar to pleopods 2–5. Uropodal exopod indurate, reaching two-thirds length of telson, broadening distally, distal margin rounded, finely serrulate; endopod twice length of basis, equal in length to exopod, distally rounded, margin finely serrulate.

Submale.—Antennule swollen, elongate, only 3 peduncle segments discernible; flagellum of 12 articles, lacking whorls of aesthetascs. Pereopods as in female. Pleopod 1 not operculate; exopod oval, slightly shorter than more rectangular endopod; both rami bearing plumose setae; basis with 2 retinaculae. Pleopod 2 similar to pleopod 1 but with club-shaped stylet on mediodistal margin of endopod extending well beyond ramus.

Material.—Holotype: USNM 170859, ♀, 8.8 mm, VIMS sta. H1, 39°12'N, 72°23'W, 350–400 m. Paratypes: USNM 170860, sub ♂, 9.3 mm, VIMS Sta. L6, 37°04'N, 74°33'W, 350 m. USNM 170861, 2♀♀ (1 damaged) 9.0 mm, VIMS Sta. H1, 39°12'N, 72°23'W, 350–400 m. VIMS Acc. No. 821, ♀, 6.5 mm, VIMS sta. J1, 38°45'N, 73°01'W, 360–410 m. VIMS Acc. No. 822, ♀, 10.6 mm, VIMS Sta. I4, 39°06'N, 72°40'W, 460 m.

All specimens were recovered from a fine sandy substrate taken by a Smith-MacIntyre grab.

Etymology.—The specific name is derived from the acronym for the Virginia Institute of Marine Science.

Discussion.—Amongst the Anthuridae, only *Neohyssura* possesses a 7-segmented maxilliped, as in the present species. (See Amar, 1952; Kensley, 1978.) *Neohyssura* also has a non-operculate first pleopod, 6 free pleonites, and 7 or 8 articles in the flagellum of the antenna. The main differences between these two genera lie in the form of the telson, (acute and spine-like in *Neohyssura*) and in the carpus of the posterior pereopods (triangular and underriding the propodus in *Neohyssura*, rectangular and not underriding the propodus in *Ocsanthura*). The mandibles of both genera show a somewhat expanded lacinia, composed of several broad teeth in *Neohyssura* but forming a broad marginally serrulate plate in *Ocsanthura*.

Acknowledgments

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